QUANTA

www.quanta.org.uk

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June 2002

Information on The Group

Membership of QUANTA, the independent QL user group is by annual subscription. The Membership secretary can supply full details. Copies of the group's constitution & annual accounts are available from the Secretary. There is an extensive software library. There are active national and international subgroups. Details are given in the Welcome Booklet, and will be published periodically.

Quanta Committee - 2001/2002

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Magazine Submissions	and small adds to be on microdrive or floppy disk (Quill _doc preferred) or by email to the editor. Non-QDOS formatted material preferred as ASCII text file or RTF file.	
Library Submissions	**John Gregory (see above)**	
Helpline Requests	**John Mason (see above)**	These must be accompanied by an S.A.E.
Back Issues Requests	**Basil Lee**	31 Fairdale Gardens, London, SW15 6JW
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EDITORIAL   Bruce Nicholls

Welcome to the new look Quanta.

I would first like to congratulate Colin on his 'short' stint at being the Quanta Editor and I echo the sentiments given by Robin this issue. Two other long serving members of the committee also stepped down, Bill Newell [left] & John Taylor [right]. I would also like to welcome John Gilpin [below] who takes on the roles of treasurer, membership secretary and

head librarian.

Please note that my address & telephone number given in the last Quanta were misprinted. This has now been corrected, if you did sent any articles off to the address given please send a new copy to the address given in this issue.

I have been involved with the QL ever since Dixons brought down the price of the QL to an affordable £299. I had previously

been an avid Zx81/ZX Spectrum user and went to the microfairs in London religiously each year. I had waited for a long time for the QL successor to come out and I wasn't to be disappointed when it was finally released, even though the press savaged it to death [It even initially had a dongle just like the ZX81 wobbly memory pack!].

I started editing QL magazines in the early 90's with my first task being QL Technical Review & QL Leisure Review published by C.G.H Services. When C.G.H Services closed in 1993 I then published QReview under my pseudonym of Quo Vadis Design for two years which then merged with the ill fated IQLR. I also took on selling QL software for a few years but due to some new family members I took a back seat for a while. I have only recently come back to be active in the QL scene [with no financial involvement] and hope I can keep up the standards that past editors have provided on the magazine.

Quantas official website is now located at the aptly named address:- www.quanta.org.uk and contains subgroup details, meeting dates and the current issue front cover list. If you would like to see further services added please write in.

Articles for inclusion in Quanta can now be sent in either PC or QL formats via email, fax or post. This issue is a little light on member articles but if you feel like writing a short article on how you use your QL or how your use has changed throughout it's years please do as I know a lot of people will be interested. I would also like to know how you like/dislike the new format. The next issue is a joint July/August issue which will be distributed mid August.

Bruce Nicholls
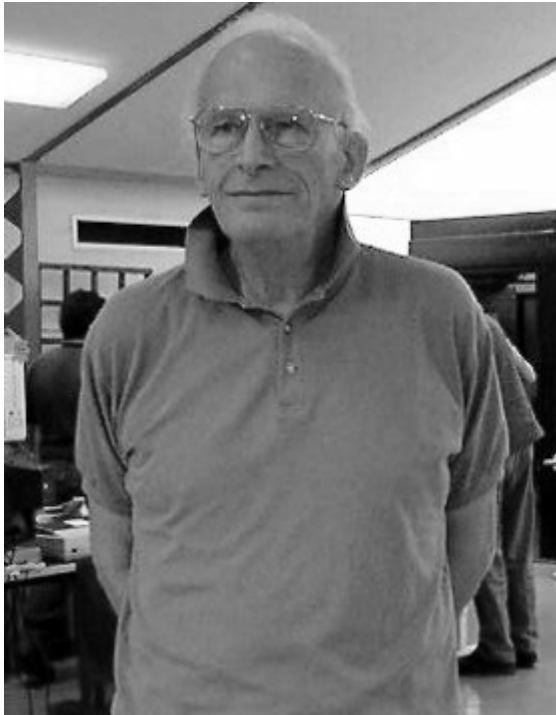
"Thanks Colin"   Robin Barker

Colin first agreed to take on the editorship of the Quanta newsletter on a temporary basis, in his own words, "just until you can find somebody else"!

The "temporary" nature of the position took a lot longer to resolve than anyone had anticipated, especially Colin. In truth, we were reluctant to start looking for a new editor since Colin was doing such a good job, for not only did he edit the newsletter, he was also a regular contributor of articles.   Editing the newsletter requires considerable time and effort and I think you will all join me in thanking Colin for his effort and dedication over the years.

Robin Barker

D&D Systems   ADVERT

D&D Systems   ADVERT

DIARY

BYFLEET 2002, QUANTA WORKSHOP, Sunday 22nd September.
To be confirmed. Details later. Contact: Ken Bain (See Subgroups).

BERCHTESGADEN GERMAN QL SHOW Saturday/Sunday 5th/6th October.
Hotel Schwabenwirt, Koenigsseer Str. 1, D-83471 Berchtesgaden. Telephone +49-8652-2011. Further information is available from F.Oertel.BGD@t-online.de or +49-8652-94871-2. The meeting starts on Friday afternoon with the main event on Saturday.

POSSIBLE LONDON, QUANTA WORKSHOP, Sunday 13th October or 10th November. Contact: Malcolm Cadman (See Subgroups).

Radio Rallies in June/July

16th June 2002
The 16th annual Newbury And District Amateur Radio Society Boot Sale will be on Father's Day, Sunday 16th June 2002, at Cold Ash, near Newbury. For further information please refer to our web site at http://www.nadars.org.uk or contact Mark Slade ,on (01635) 36444(day).

30th June 2002
CITY OF BRISTOL RSGB GROUP Longleat Amateur Radio & Computer Rally - Ron, 0117 985 6253 or ronford@g4gtd.freeserve.co.uk www.longleatrally.co.uk.

13th July 2002
The Cornish Radio Amateur Club Radio and Computer Rally takes places once again at Penair School Truro. There will be trade stands, Bring & Buy, Morse tests, free car park, catering, talk-in, Doors open 10.30 For More information contact Ken rally coordinator ken@jtarry.freeserve.co.uk or John g4ljy@hotmail.com.

26th-28th July 2002
RADIO AMATEURS OF CANADA 2002 National Convention - www.rac2002.org

SUBGROUP MEETINGS

THE BIRMINGHAM BRANCH QL USER GROUP (WM)

Meets in the Queens Head, Steelhouse Lane, Birmingham B4. Just up from Steelhouse Lane police station opposite Printing House Lane.
We meet every 1st and 3rd Monday in the month except Bank holidays.

Mike Bedford-White, 0121 708 2560 after 11 am.

EAST ANGLIAN QL USER GROUP

At first, while attendance is building up, the meetings will be at a house at 21 Rowington Road, Norwich; it is hoped that meetings can move to a local room/hall. Rowington Road is behind the Grove Road shops, which is near Sainsburys on Queens Road. Rowington Road is also near the Bus station and St Stephen's Street.
The East Anglian sub-group of Quanta meets on the 2nd Sunday of the month in central Norwich. The meetings start at 2pm and end at 6pm, or earlier if we prefer.

Tarquin Mills <planetl4@boyznow.net> or tel: 01603-470399.

QUANTA DORSET SUBGROUP

Meetings are held at the Merley Community Centre in Harrier Drive, Merley just south of Wimborne Minster. All are welcome.
Normally on the second Sunday of each month .

Derek Pope, 01202-889070, or John Mason, 01425 275894.

KENT QL USER GROUP

Meetings are held at flat 6, 48 Cheriton Road, Folkestone, Kent. Find the railway station go under the iron bridge and urn immediate left. Down the road there is a petrol station on the left, turn left again and go 300yds down the road near a school crossing sign.
First Saturday of the month. 10am & 2pm.

Paul Merdinian, Telephone 01303 220924.

LONDON QL AND QUANTA GROUP

We meet in the basement of the Borough Welsh Chapel, 90 Southwark Bridge Road, London SE1. This is almost opposite the junction with Marshalsea Road, at the other end of which, 5 minutes walk away, is the Borough Underground station. Parking easily available in Southwark Bridge Road for road users, cyclists welcome. The charge toward

hire of the hall is £2.00, and tea/coffee is provided at a small charge. Please bring your QL equipment if possible, all types welcome e.g. PC portables running emulators.
2.00 p.m. to 6.00 p.m. on the second Sunday of every month.

Malcolm Cadman:Tel. 020 8691 5780; email: ql@mcad.demon.co.uk

NEMQLUG - THE NORTH EAST MANCHESTER QL USER GROUP

181, Urmston Lane, Stretford, Manchester. M32 9EH (Near Junction 7 of M60 Motorway - Was Junction 7 M63 Motorway). Our informal meetings start at 7-OOpm and finish at 11-OOpm. All welcome.
Meets on the last Thursday of each month (except December).

John/Sarah Gilpin 0161-865 2872 (gilpins@ic24.net) or John/Alison Southern 01625-850067. (tarragon@bigfoot.com)

SCOTTISH QL USERS GROUP

THORNHILL COMMUNITY HALL.Thornhill is 11 miles west of STIRLING on A84 then A873.
Second Sunday of every month from 11.30 am to 4.30pm.

Ronald Bezzant, Monievreckie, Port of Menteith, STIRLING, FK8 3RD. Email: <bezzant@talk2l.com>.

SOLENT SUBGROUP

Meets at Botley Market Hall, all welcome. Park at the back and use side entrance.
1st Saturday of the month from 2.00 pm to 6.00 pm.

Graham Evans, tel: 023 8040 3350.

SURREY QUANTA SUBGROUP (SQSG)

Venue is St Giles Church Hall, Ashtead. (This is the other side, towards the downs, of the main Epsom - Leatherhead road, up Park Lane which is at the Epsom end of the town).
From 8.00 to 10.30 pm on the last Wednesday of each month, except December.

Ken Bain 01932 347 432 (to midnight), kenb@bcs.org.uk

SUSSEX QL USER GROUP

Currently without a meeting place, anyone interested should contact Keith Mitchell or Roy Wood.

Roy Wood, 01273 386030 or Keith Mitchell, 01903 742263.

NEWS

SMSQ/E SOURCE CODE

This is to keep you informed of the state and status of the SMSQ/E source code. The future licence-to-be has been a bit modified, notably to take into account the fact that test versions must be easily distributed. Here is the (still provisional) text. As usual, I invite all of you to comment.

I have now received the source code from Tony Tebby, and, as soon as this licence is hammered out and I have had a chance to put everything in order, I'll start sending it out. I'm now taking orders....

Official statement
==================
1/ This software, called 'SMSQ/E', is copyright © Tony TEBBY. Any unauthorized copying or use of the software, whether in binary or source code form, and/or its documentation is prohibited.
2/ SMSQ/E will be made available, as source code only, to any person who so requests it. The request must be made to the "registrar", i.e. me. The source code will be sent via CD ROM, thus the request must be accompanied by 3 IRCs, else it will be ignored. The SMSQ/E that will be so made available is the SMSQ/E as it stands NOW. Any future changes/additions/modifications/adaptions to this code may, or may not, be excluded from the official release version, since the authors of such changes/additions/modifications/adaptions may state whether they want their source code to be included in the official distribution, or not.
3/ No distribution of SMSQ/E may be SOLD, except for the official distribution. This interdiction includes that of including and distributing SMSQ/E in Public domain libraries. Official distributions will be sold in compiled (binary) form, possibly together with the official distribution as source code. For such sales, for the time being, two

distributors/resellers, namely Jochen MERZ (JMS) and Roy WOOD (QBRANCH) have been appointed by the copyright holder. Resellers provide support for the versions sold by them. Except by prior agreement, binary, i.e. compiled, versions of SMSQ/E may not be distributed other than through the distributors.

4/ The registrar, i.e. me, will maintain official distributions of SMSQ/E, in binary and source code form, one for each machine on which SMSQ/E may run.

5/ Any person may make any changes/additions/modifications/adaptions to the source code he feels like. Any person may give away to others the modification he thus made, including the official distribution in source code form only, provided this is made ENTIRELY FOR FREE - no charges, not even copying charges, or charges for the media on which this is distributed, may be levied. This distribution of the source code including the changes/additions/modifications/adaptions made by any author may not be made in electronic form other than on a physical disk. Distribution of the changes/additions may be in binary(compiled) form, provided that the original and/or official version of SMSQ/E, which is copyright © T.Tebby, is not distributed in binary form as well.

6/ Any changes/additions/modifications/adaptions may be proposed by their author(s) to the registrar for inclusion in the official distributions of SMSQ/E. The registrar is not obliged to include any proposed changes/additions/modifications/adaptions in official versions.

When making such a proposal for inclusion, the author of the changes/additions/modifications/adaptions may state whether his contribution:

 - is to be distributed in the same way as theofficial version, or

 - is to be made only in the compiled (binary) form of the official distribution, or

 - is to be made alongside, but not included in, the official distribution.

Failing such a statement, the inclusion will be contained in the compiled and the source code versions. By submitting code to the registrar, the author

agrees to the limitations as set out herein.

7/ Authors retain copyright over their changes/additions/modifications/adaptions, but when and by submitting them to the registrar, they explicitly agree that, if they are accepted in any official distribution (under the provisions hereof), they may be included in all other future distributions (in other words, you can't submit something, which is included, and then some months later attempt to withdraw it). By and when submitting proposed changes/additions/modifications/adaptions to the registrar, author(s) of such changes/additions/modifications/adaptions also agree that others may, in the future, bring about changes/additions/modifications/adaptions to the code of any changes/additions/modifications/adaptions such as submitted to the registrar. Copyright of the author(s) of any changes/additions/modifications/adaptions will be acknowledged in the official distribution.

8/ For testing purposes only, authors having made one or several changes/additions/modifications/adaptions of SMSQ/E may, as an exception to the prohibition of distributing code stemming from the official release version in binary form as mentioned above, give away binary version of their code, together with binary versions of SMSQ/E, to not more than 10 persons in total (whatever the number of test versions), provided that the persons receiving these test versions agree to destroy them:

- after a period of 2 months, or

- at the time the changes/additions/modifications/adaptions for the test version are included in the official release version, or

- when they are notified by the author that a stable version is now available whatever comes first.

9/ A styleguide will be maintained by the registrar, to which any addition must adhere. The styleguide will be part of the official distribution

End of official statement.
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As usual, all of your comments are appreciated.

Wolfgang - wlenerz@free.fr

RWAP SOFTWARE

Some distributions of Flashback SE v2.05 would not have the report generator included. Can customers who do not have the file report_bas on their Flashback disk, please send the disk together with an SAE for a free upgrade.

Rich Mellor
RWAP Software
7 Common Road, Kinsley, Pontefract, West Yorkshire, WF9 5JR
TEL: 01977 614299
http://hometown.aol.co.uk/rwapsoftware

JOCHEN MERZ SOFTWARE

The next sub-version of QPC2 Version 3 should be released at the North American QL Show.
This new version (V3.03) will most likely contain a new Window Manager and improved control commands for the DOS device (e.g. DOS_DRIVE$). Marcel also hopes to have a new memory scheme implemented which works like the one implemented on the ATARI TT. This will speed up file access time considerably with large amounts of RAM!
Updates from previous version 3 will be free, for other upgrade prices check the JMS advert.

QL-USERS MAILING LIST ON THE MOVE

The QL-Users email mailing list is on the move to a new 'Home' from its long running association with nvg.ntnu.no . The move was due to an anti-spamming policy being implemented on the site which excluded certain domain names from sending in emails to the list. Anybody with an internet email account is able to join the email discussion list by sending a message to majordomo@www.quanta.org.uk with subscribe ql-users in the content of the email. A welcoming message will then be sent back to the subscribed address detailing how to send an email to the list which will then be sent to all the subscribers.

Q-CELT COMPUTING

THE LARGEST SUPPLIER OF PURPOSE MADE QDOS CD-ROMS

The Falconry, Glenmacnass, Glendalough, Co.Wicklow, Republic Of Ireland.
Tel:(+353)404-45319 Fax:(+353)404-45558 Mobile:(+353)86-8100090
Email: qceltcomputing@hotmail.com

THE DILWYN JONES QL COLLECTION - All of the commercial and freeware software ever written by Dilwyn Jones, suffice to say this is excellent value and there are several programs here that no QL user should be without. REDUCED TO £15 !!

THE QL EMULATORS CD - This is a collection of all known QL emulators for various formats, including the PC, Apple Mac, Unix/Linux, Atari and Amiga. It even includes a special version of Tony Tebbys Toolkit II and approximately 1,000 (Yes, one thousand!!) freeware and Public Domain QL programs. SPECIAL : JUST £5!!

THE RELIGION CD-ROM - A huge collection of various texts, books and documentation with religious signifigance. All the major religions of the World are covered - origins, beliefs, etc. as well as sermons and parables. Priced at Just £10

LINEDESIGN CLIPART CD - A full CD of the finest clipart ever produced for the QL. Over 600 Megabytes of Data, and literally hundreds of files, crammed onto just one CD - perfect for designing that flyer or newsletter. Now just £10.

INTERACTIVE FANTASY CD - The work of Phoebus Dokos, this is a great CD for the Adventure Gamer, and contains hundreds of INFOCOM adventure games,.. Lifetime updates are available FREE via email from Phoebus - ask for details. SPECIAL PRICE :- £10 (a percentage of all profits will be donated to charity)

FAMOUS FACES CD –caricatures of the rich & famous in lineDesign format. £10.

THE ZEXCEL SPECTRUM EMULATOR CD - A CD based on the popular ZX Spectrum Computer emulator - play all your old Spectrum favourites on your QL - thousands of Games are included, Utility Programs, Wp's, Desktop Publishing etc. The latest version of ZeXcel for the QL is also included - months of fun for only £10!!

WORLD OF Z88 CD – for the Cambridge Z88 Computer - almost 2,000 files, including MS-DOS and Windows Z88 Emulators, EPROM Images, Games, Utilities, the Z88 User Library, Sourcebook, etc. Just £8!!

QL DOCUMENTATION CD – A collection of doc's for the QL on all available hardware and some hard to find information. Includes all miracle manuals! £10

Above Prices do not include P&P – please add £1 per disk. We accept Cheques in Sterling made payable to "D.Branagh" and Major credit cards by prior arrangement – please email or phone for details. We also stock rare pieces of QL hardware & Software – Call us!
Please allow up to 14 days for delivery. E&OE.

QL2002 – THE DVD   Steve Reyal

Last night, Bruce asked me to write a few words on this QL DVD I'm working on. And I've been at something of a loss as to how to start.

So I'd best go back a few months, to when Darren Branagh (QCELT) came over to London for a weekend visit and the Hove workshop. We stormed the British Computer Fair, watched a few videos, stayed up far too late chatting about QLs, sci-fi and how to take over the world – you know, the usual stuff. And, as often happens, we ended up bouncing a few ideas back and forth.

Since my day-job involves working at a West End television editing facility, I just thought it would be nice to produce some sort of video on the upcoming workshop and QUANTA AGM in Manchester. But VHS seemed to be a bit old fashioned, so at about the same time we both said "why not put it on DVD?"

I know, I know – you can't play a DVD in a QL (at least not yet – come on Nasta... how long before the Aurora II arrives?) But you can play them in domestic players.

And you can play them in computers equipped with DVD-ROM drives and appropriate playing software. You can even have clickable internet links for PC and Macintosh users.

Then Darren came up with the real bonus – why not put the contents of the QL Emulators CD on the disk as well? So if you're using a computer to view the DVD, you could fire up an emulator without even having to change disks. Bliss!

So we got hold of a camera, and some sound gear (which didn't work very well in the end, sadly) and headed for Manchester. We'd already

decided that we wanted about half an hour or so of material on the DVD, and set up a shooting schedule to get all we needed on tape. Shots of Darren introducing and closing the programme, a "Martin Brundle-style" walkabout in the dealer room, a couple of interviews with notable personalities in the QL world, and maybe some out-takes (if we were lucky).

We even managed to get some shots of the lovely Chinese meal on the Saturday night - organised by the Gilpins, as well as a few pictures from the QUANTA AGM. Being a fairly new returnee to the QL fraternity, I don't know if

Bill Richardson

Tony Firshman

pictures have ever been taken at an AGM before, but we were certainly very grateful to be allowed to record some video images for posterity.

We were also very lucky to get some time to hear a few stories from Tony Firshman and Bill Richardson. Our thanks go out to both of them for talking to us, and everyone else who has been involved in the project – both in Manchester, and those we cajole into taking part in our next endeavour in the good ol' U-S-of-A. But more on that in a moment...

There weren't many out-takes, so I don't think we'll be getting a call from Denis Norden any time soon. I DID once get a call for some footage for "It'll Be Alright On The Night" which made it on to the show, but that's another story.

By the time I shot Darren's closing piece to camera – in the rain outside the Scout hut, I had about three hours of source footage, which was just about right.

After a few weeks of fitting post-production in during evenings and weekends, I'm just putting the finishing touches to the video editing. I

was a television editor for seven years and it was nice to get back to it for a while. The DVD authoring will begin shortly.

Both the NTSC and PAL versions of "QL2002 – THE DVD" should be ready by the time Darren and I leave for the NESQLUG show in Maryland, and we'll be taking a few disks of each format out there with us. After that, Darren will be handling distribution of the completed disks through Q-Celt.

While we're out there, we'll be shooting again for the next disk – maybe in honour of Marcel we could call it "QL2002v2?" I'll have to chat with Darren about that!

Marcel
Kilgus

Why the second disk? Well, there weren't very many Americans in Manchester last month. And apart from some notables like Roy, Jochen and one or two others, there won't be very many Europeans at the crab-fest either. So producing a DVD for each event will give viewers on the opposite side of the pond a taste of what it was like to be there. And they're also for those who couldn't make it to their "local" events (Phoebus especially - to choose returning to Greece over a QL event... scandalous!)

We haven't decided what extras we'll put on DVD number 2 yet. But with seven hours to chat about it on the plane, I'm sure we'll think of something to fill the extra space!

RWAP QL SOFTWARE ADVERT

USING ARRAYS IN PSION'S ARCHIVE
PROGRAMMABLE DATABASE   Don Atkins

As users will know, Archive does not support arrays and has to be coerced when an array is needed. This is done by allocating a field in a database record which can then be manipulated to store the required elements with separators marking the boundary between elements. The routines for creating and manipulating their data are explained in Malcolm Davison's Advanced Archive book published by Sigma Press published as long ago as 1985.

In my business I need to access data on both part numbers and parts descriptions from comparatively large database files which, in itself, is neither uncommon nor difficult. But it happens that parts descriptions often have the first 8 characters identical with differences occurring only somewhere in the next 10 characters of the 18 character string ! Archive's 'Locate' command looks only at the first 8 characters and therefore cannot cope with my requirements.

I therefore devised a program utilising Linked Lists and an article I wrote on this topic appeared in Volume 8, Issue 10 of QUANTA magazine in 1991. My own introduction to the priciple of linked lists was by Bill Fuggle's article in the Vol.6 Issue 4 edition of QUANTA mag in 1989 in which he explained its application to the library database.

I'll recap as briefly as possible to assist today's readers to understand the basics of linked lists.

The unordered database file, the so-called main file which needs to be accessed by the routines, is provided with a field that contains it's own file recnum().

A linked file, which I'll call a subfile, is created with just 2 fields, the first of which, D$, contains only the first 8 characters of the item description and it is Ordered on that field. The second field, I$, holds the recnum(), separated by commas, for each of the items to which that description applies, taking care that each recnum() slot in the field is a fixed length which must be chosen so as to cope with the number of records in the main database file. I call this field the indices array. In my own application the length of the indices slot in the array is 5 bytes including the separating comma.

To find a particular item in the main file, 'Locate' is used to jump to the description field D$ in the subfile. Then, by using the 'Position' command, the main file records that correspond to the numbers in the indices array are

examined in turn until the wanted item is reached. The 'Position' command is fast acting like 'Locate' and avoids the use of the slow 'Search' command.

By now some of you will be asking why I'm retracing all this old ground - fair enough !

When recently using one of my business programs and trying to add a new item to the relevant data file I got an unpleasant surprise in the form of the error message 'String subscript error'.

Upon investigating I discovered that the relevant indices array was now filled to it's capacity 255 bytes. Problem - how to overcome this restriction ?

The solution seemed to be to use an additional field to store additional indices relating to new items, but this would need to be achieved automatically and without interrupting the routine progress of the program. And related programs which need to find data relevant to any item in the main file must be able to take into account that the indices might be in any of several indices arrays each having a description field D$ with the same content.

So, before adding an item to the main file and attempting to put it's indice in the subfile, the indices array needs to be checked for its current length. If it has reached 255 it cannot accept another indice and an additional record is needed in the subfile.

Let's call the subfile field that contains the 8-character description D$ and the indices field I$, then:-

```
IF LEN(I$)=255:rem:    Indice array is filled
NEXT:rem:       Advance to the next subfile record
   IF ([description of new item] to 8)=D$
   rem:        See if there's already another record with same D$
   rem:        Yes, there is
   LET I$=I$+num([new indice],4)+",":UPDATE
   rem:        Then add the new indice to existing record
      ELSE:BACK: rem: No. A new file record is needed for D$
      LET D$=([description of new item] to 8)
      LET I$=I$+num([new indice],4)+",":append
      rem:   Add the new indice 8 separator to the new file record
      ENDIF
   ENDIF
```

The subfile now has 2 (or more) consecutive records having the same 8 characters for the D$ field, thus expanding the room for indices arrays by 255 bytes per record. So the problem of the overflowing indices array is overcome.

When it comes to accessing an item in the mainfile the routine needs now to take into account the possibility of more than one related indices array to search. For the purposes of an example, let's call the proc that traverses the indices array for a match ATRACK and construct the proc so that it sets a flag X to 1 if a match is not found or to 0 if it is.   Then:-

```
INPUT "description sought ? ";D$
USE "subfile": LOCATE D$
rem:   Get to the subfile record containing 1st 8 characters of item
description
ATRACK:rem:    Look for a match using this record's indices array
WHILE X=1:NEXT:rem:   No match, look at the next file record
   IF D$(TO 8)=([description sought] to 8)
   rem:      Is there another related indices array for the item ?
   ATRACK:rem:Yes, go search that indices array for a match
      ELSE:BACK:rem: There is not another related indices array
      ENDIF:PRINT [description sought];" Sorry, Not Found":return
   rem:       Search ended, return to menu
   ENDWHILE:rem:     X=O, Match found
   USE "mainfile":rem:      Now operate on the mainfile
   POSITION #:DISPLAY:ALTER
   rem:       Where # represents the matching indice from the array
```

Regardless of the number of related indices arrays for a given mainfile description, they will be examined for the required match.

W.N.Richardson ADVERT

D&D Systems - Q60 the new QL   Dennis Smith

I suppose many of you have been waiting for something to read from D&D Systems about the new QL, our very nice Q60 computer. We have been so busy that the last thing to do was write an article for any publication. I shall start at the very beginning, that's a very good place to start...

Hundreds of thousands of millennia ago at a distant Galaxy, in an unfamiliar Solar system, on a Planet exactly like ours... No, No, I've started too far back, wait a minute... right, I'm ready. Take 2. About a year ago my partner in a PC computer business, Derek Stewart decided to invest (purchase) in a special development of the Q40, the new computer being called the Q60. The name Q40 derives from the CPU used which is the Motorola 68040 running at 40MHz. The Q60 uses the Motorola 68060 CPU running at 60, 66 and 80MHz. For each different speed a different CPU is used. Derek had to build this new Q60 himself as they were not available ready built. He already had an old Q40 that Roy Wood

sold so he was familiar with the layout. I have never had a Q40 or ever used one so the Q60 was completely new to me.

Derek got the Q60 working and was very pleased at the improvements when compared to the Q40, of course the Q60 was a lot faster but things that didn't work on the Q40 did work on the Q60, there was obviously a difference and the difference was the operating system, this had been repaired.

The Q60 designer, Peter Graf, was looking for someone suitable to produce the Q60 hardware and at that point Derek and I offered to do it. I understood what was needed to produce a successful product which was an excellent build quality with the addition of offering an all new complete computer system, plug it in, switch on and start work, no messing about with self assembly.

We decided to carry our name on for the production of the Q60 although it is entirely separate from the PC business and it has to be like that. We had huge start-up expenses so we decided to ask Quanta to help with these expenses which they agreed to do, a plan was devised and production started. Peter took care of the

advertising whilst Derek and I took turns in soldering the components to the PCB to produce this wonderful creation the Q60. There is really a lot of work producing these hand built specials but it is worth every minute, hour and day of labour when I switch each one on for the first time and see it spring into life, a beautiful sight. It is like the birth of your child, it means a lot to us.

D&D are now quite settled on the production of these units, I do all the soldering and bring the motherboards up to a working unit running on test ROMs at 128MB of RAM (which we call stage 1 testing) and handle sales. Derek builds the Q60 into cases and handles shipping. He also has the fun of testing each Q60 on a test rig for 2 days under heavy conditions running SMSQ/E and Linux (stage 2 testing). One of the tests is to connect to the Internet, at full modem speed of course and download maybe a 7MB, 10MB or 15MB file, easy. All of the Q60s we have built work, no failures at all. It's a robust, solid and excellent design, I love it.

Most people are going for the complete build (we call it a 'B' type build). This would include the Q60 motherboard, Input/Output (i/o) card, SMSQ/E, CD ROM, Floppy disk, 20 GB Hard disk, Midi Tower case (3 x 5.25" bays) and all the various leads for svga monitor output, Stereo sound jack socket plus manuals and support disks. Extra add-ons might be a Linux CD, 3 button mouse, keyboard and mains powered Stereo speakers (2 speakers and a sub-woofer). The compact flash device works with the Q60 (like a removable hard disk card, 2 of them would fit on the size of a credit card) the maximum compact flash size might be 512MB today, but tomorrow...?

The assembly time for a Q60 from a pile of bits to a cased and fully functional machine is 3 days add to that the 2 days of test and you can see how much effort we put into each unit, all for the good of the QL community, it is worth the effort. Now the development starts...

get ready for great things.

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